Patent Application: 09/552,766
Docket No: P13614US1

Amendments in the Specification

Please amend the claims as follows:

1. **(Currently amended)** In a ~~GPRS~~ cellular telecommunications network, a Radio Base Station (RBS) comprising:

     routing area-cell mapping information defining a relation between a routing area (RA) and at least one cell of said RBS; and

5   a Packet Control Unit (PCU) for processing a page request received from a Serving GPRS Support Node (SGSN);

     wherein said PCU associates an RA information extracted from said page request with cell identification information using said routing area-cell mapping information.

2. (Original)   The RBS as claimed in claim 1, wherein said page request is comprised in a broadcast message sent from said SGSN.

3. (Original)   The RBS as claimed in claim 2, wherein said broadcast message is an IP broadcast message.

4. (Original)   The RBS as claimed in claim 2, wherein said broadcast message is an IP multicast message.

5. (Original)   The RBS as claimed in claim 1, wherein said routing area-cell mapping information of said RBS is downloaded from at least one of a Radio Network management Control point (RMCP) and a Radio Network Server (RNS) of said GPRS cellular telecommunications network.

6. (Original)   The RBS as claimed in claim 4, wherein said RBS further comprises an IP message processor for decapsulating said IP multicast message and for extracting a Base Station Subsystem GPRS Protocol (BSSGP) message from said IP multicast message; and

wherein said PCU further comprises:

a Page Detector for detecting if said BSSGP message is a BSSGP page request, said Page detector receiving said BSSGP page message from said IP Message Processor; and

a routing area/Cell mapping translator for translating said routing area information extracted from said BSSGP page request in said cell identification information, said Translator receiving said BSSGP page request.

7. (Original).   The RBS as claimed in claim 6, further comprising:

a memory for storing said routing area-cell mapping information, wherein said translator is linked to said memory, and obtains from said memory said routing area-cell mapping information for translating said routing area information in cell identification information.

8. (Original)   A packet-switched GPRS cellular telecommunications network comprising:

a Serving GPRS Support Node (SGSN);

an IP-based Radio Access Network (RAN); and

at least one Radio Base Station (RBS) comprising routing area-cell mapping information;

wherein said routing area-cell mapping information defines a relation between a Routing Area (RA) and at least one cell served by said RBS.

9. (Original)   The GPRS cellular telecommunications network as claimed in claim 8, further comprising:

a Radio Network Management Control Point (RMCP) node for storing a master routing area-cell mapping table defining relations between a plurality of routing areas (RAs) and a plurality of cells of said network;

wherein said routing area cell-mapping information of said RBS comprises a sub-set of said master routing area-cell mapping table, and is obtained from said RMCP by downloading in said RBS a portion of said master routing area-cell mapping table that relates to at least one cell served by said RBS.

10. (Original)   The GPRS cellular telecommunications network as claimed in claim 8, wherein said RBS further comprises:

a memory for storing said routing area-cell mapping information; and

a routing area/cell mapping translator for translating a RA information extracted from a received page request message in cell identification information.

11. (Original)   In a GPRS cellular telecommunications network a method for paging for a mobile station (MS) in at least one cell served by a Radio Base Station (RBS), said method comprising the steps of:

receiving by said RBS a broadcast message comprising a Base Station Subsystem GPRS Protocol (BSSGP) page request;

extracting from said broadcast message said BSSGP page request comprising a routing area (RA) information;

translating said RA information into cell identity information based on a RA-cell mapping information stored in said RBS; and

paging in at least one cell served by said RBS based on said cell identity information.

12. (Original)   The method as claimed in claim 11, wherein said broadcast message is an IP broadcast message.

13. (Original)   The method as claimed in claim 10, wherein said broadcast message is an IP Multicast message.

14. (Original)   The method as claimed in claim 13, wherein the step of extracting comprises the step of decapsulating said IP multicast message.

15. (Currently amended) In a GPRS cellular telecommunications network a method for paging for a mobile station (MS) in at least one cell served by a Radio Base Station (RBS), said method comprising the steps of:

receiving by said RBS an IP multicast message;

decapsulating said IP Multicast message in the RBS;

5   extracting from said broadcast IP message a Base Station Subsystem GPRS Protocol (BSSGP) message in the RBS;

detecting in the RBS if said BSSGP message is comprises a page request message;

if said BSSGP message is comprises a BSSGP page request, translating said RA information extracted from the page request message into cell identity information based on an RA-cell mapping

10   information stored in said RBS; and

paging in at least one cell served by said RBS based on said cell identity information.

1